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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/743,837	01/16/2001	Kei Yoshida	PHJ-99007	8697

7590 11/20/2002  
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EXAMINER

AKKAPEDDI, PRASAD R

ART UNIT PAPER NUMBER

2871

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/743,837

Applicant(s)

YOSHIDA, KEI

Examiner

Prasad R Akkapeddi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-10 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, 'the blank boxes must be filled in Fig. 5' or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The abstract of the disclosure is objected to because: It is not limited to a single paragraph. Either it should be deleted or explained properly in the abstract. Correction is required. See MPEP § 608.01(b).

3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)),

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and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a).

"Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(e) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(f) BRIEF SUMMARY OF THE INVENTION.

(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

***Claim Objections***

4. Claim 5 is objected to under 37 CFR 1.75(c) as being in improper form because it depends upon multiple dependent claims 1-4. See MPEP § 608.01(n). Accordingly, the claim 5 has not been further treated on the merits.

5. Claims 1-10 are objected to because of the following informalities: delete the capitalization of the word 'characterized'. Further, the office recommends the use of 'wherein' instead of 'characterized'. Appropriate correction is required.

6. Claims 4 and 7 are objected to because of the following informalities: change 'wave-length' to 'wavelength'. Appropriate correction is required.

7. Claim 8 is objected to because of the following informalities: 'a preceding step' implies that there is a step before that. Since no other step is recited, rewording to 'a first step' is recommended. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 1 recites the limitation "the transparent layer" in claim 1. There is insufficient antecedent basis for this limitation in the claim.

10. Claims 1, 6 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention: The statement ' the coloring portions performing coloring of the primary colors' is not clear due to the reason that the primary colors already contain different colors and coloring portions are not necessary to perform coloring.

11. Claims 4 and 7 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention: the recitation "the light components of predetermined wavelengths are white light" is unclear since the components of white light are the predetermined wavelengths and not the other way around as recited.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

13. Claims 1-4, 6-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Funahata et al. (Funahata) (U.S. Patent No. 6,476,890).

As to claim 1: Funahata discloses a reflection type color liquid crystal display device (Fig. 2) for displaying a color image formed based on unit pixels (Fig. 4) each comprising sub-pixels corresponding to primary colors (5a, 5b, 5c) a liquid crystal layer (14), a reflection layer (3) reflecting light which is incident thereon via the liquid crystal layer, a transparent electrode layer (6, 11) and pixel electrode layer (3), the transparent layer (11) located on a side of one main surface (10) of the liquid crystal layer (14), the pixel electrode layer located on a side of another surface (7) of the liquid crystal layer on which light reflected from

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the reflection layer (3) is incident and a color filter layer (5a, 5b, 5c) comprising primary colors (red, green, blue) for the light to be transmitted through the liquid crystal layer, the sub-pixels (under each color pixel 5a, 5b, 5c), the unit pixel further comprises a sub-pixel (Fig. 4) for increasing luminance (brightness Col. 1, line 57) and the color filter layer further comprises additional portions (5a, 5b, 5c) that transmit light components of predetermined wave-lengths (red, green, blue).

As to claim 2: In Fig. 13 Funahata discloses that the color filter layer is located on a side of the one main surface (top) on which extraneous light is incident.

As to claim 3: In Fig. 14, Funahata discloses that the color filter layer is located on a side of another surface (bottom) of the liquid crystal layer on which light reflected from the reflection layer (52) is incident.

As to claim 4: Funahata discloses that the light components are red, green and blue which are components of white light.

As to claim 6: Funahata discloses a light scattering portion (3, diffuse reflector) being extended over the whole of the film (Fig. 2) and the additional portions (5a, 5b, 5c) and the light scattering portion are integrally formed from the same material (Col, 10 lines 10-33).

As to claim 7: Funahata discloses that the film contains the light components of predetermined wavelengths (red, green, blue) which are components of white light.

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As to claim 8: Funahata discloses a method of manufacturing a light scattering film (Fig. 1a-1i) with a step of forming coloring portions on a support member (Fig. 1g) and a step of forming a light scattering portion (Cols. 7-8).

As to claim 9: Funahata discloses that the support member is a transparent substrate (52, 53, 54) located on a front side of a display screen in the liquid crystal display device (Fig. 13).

As to claim 10: Funahata discloses that the support (52, 53, 54) member is a transparent substrate which is located on a rear side of a display screen in the liquid crystal display device and on which a layer of driving element array and a reflection layer are stacked, and in that the coloring portions and the additional portions are formed on the reflection layer (Fig. 14).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prasad R Akkapeddi whose telephone number is 703-305-4767. The examiner can normally be reached on 7:00AM to 5:30PM M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on 703-305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0530.



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November 14, 2002

*W*  
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SUPERVISOR OF CLASSIFICATION  
TECHNOLOGY CENTER 2000